

IN THE SPECIFICATION

Please replace paragraphs [0040] and [0041] with the following rewritten paragraphs:

[0040] As shown, the end units are the origination and destination points of traffic and will be referred to herein as customer premises equipment (CPE). Nodes 101, 102, and 103 are connected to nodes ~~1051-1053, 1071-1073, and 1091-1093~~ 105₁-105₃, 107₁-107₃, and 109₁-109₃, respectively. The transmission paths connecting the nodes and CPEs are assumed to be all-optical paths in which WDM signals travel. Transmission paths connecting one node to another node will be referred to as transmission interfaces and transmission paths connecting one CPE to another CPE will be referred to as connection interfaces. For example, path 115 is a transmission interface and path 116 is a connection interface.

[0041] Each node includes the equipment necessary to perform optical switching of the channels and packet switching of individual data packets. Accordingly, each node includes a router and an optical switch. A simplified schematic diagram of a node 300 is shown in FIG. 3. In this illustrative embodiment of the invention the optical switch 310 is depicted as an optical cross-connect and the router 312 is depicted as an IP router. As shown, the node 300 includes a plurality of input/output ports ~~33201-3204 and 3301-3304~~ 320₁-320₄ and 330₁-330₄ for receiving the WDM optical signals from the optical transmission paths. Once optical cross-connect 310 receives a WDM optical signal, it may forward the signal to the router via interface 314, where it will undergo optical to electrical conversion. As previously described in more detail, the router 312 assembles the data packets and reads their destination address to determine the subsequent nodes to which the packets are to be forwarded. The data packets then undergo electrical to optical conversion in interface 314 and are directed onto the appropriate channel so that they can be forwarded to the appropriate nodes by the optical switch 310.

Approved by Examiner
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